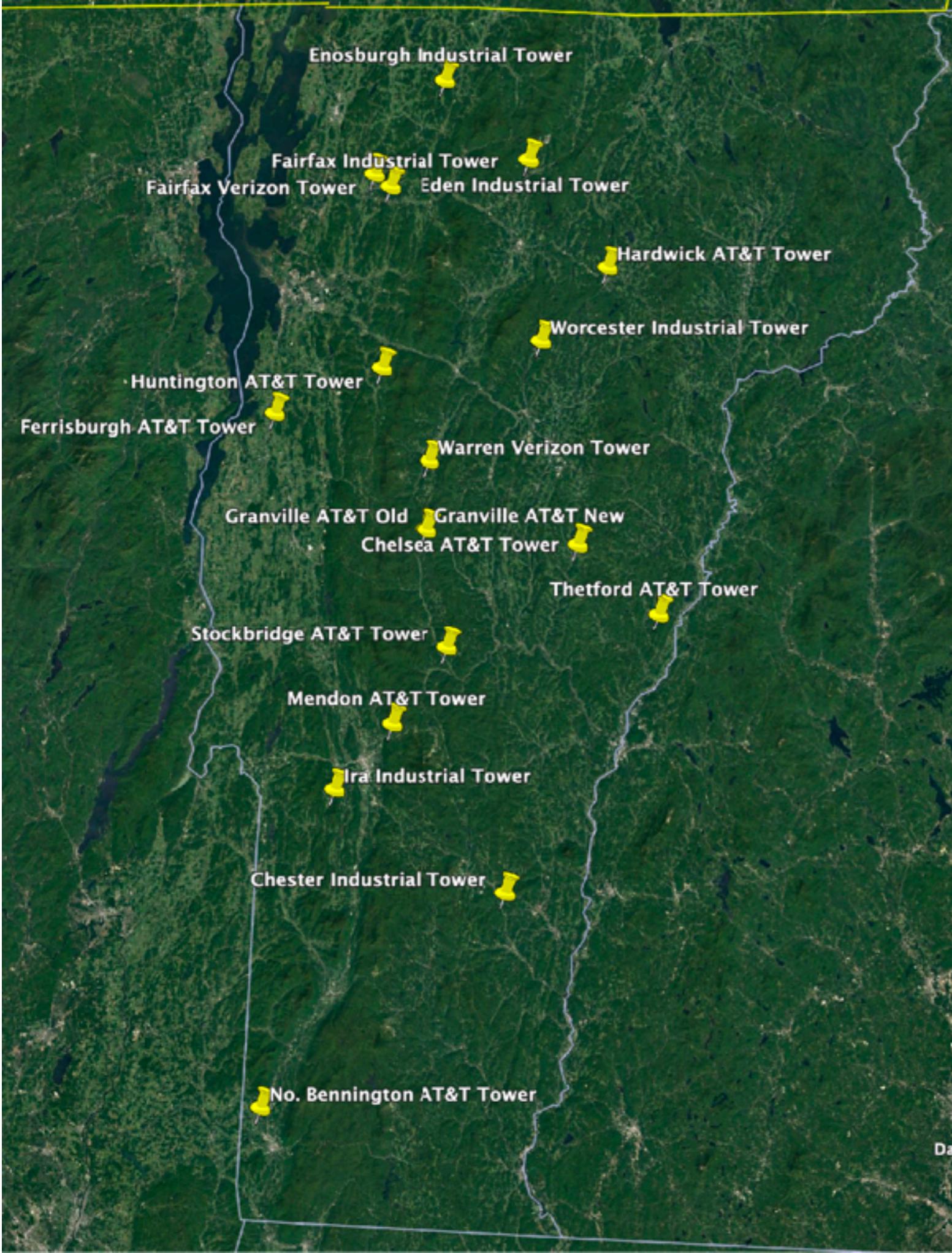


Presentation to House Environment & Energy Committee
March 14, 2023

Towers and Antennas In Vermont

Section 248a, H.70, H.110, \$10 million for 20 towers

Annette Smith, Executive Director. Vermonters for a Clean Environment



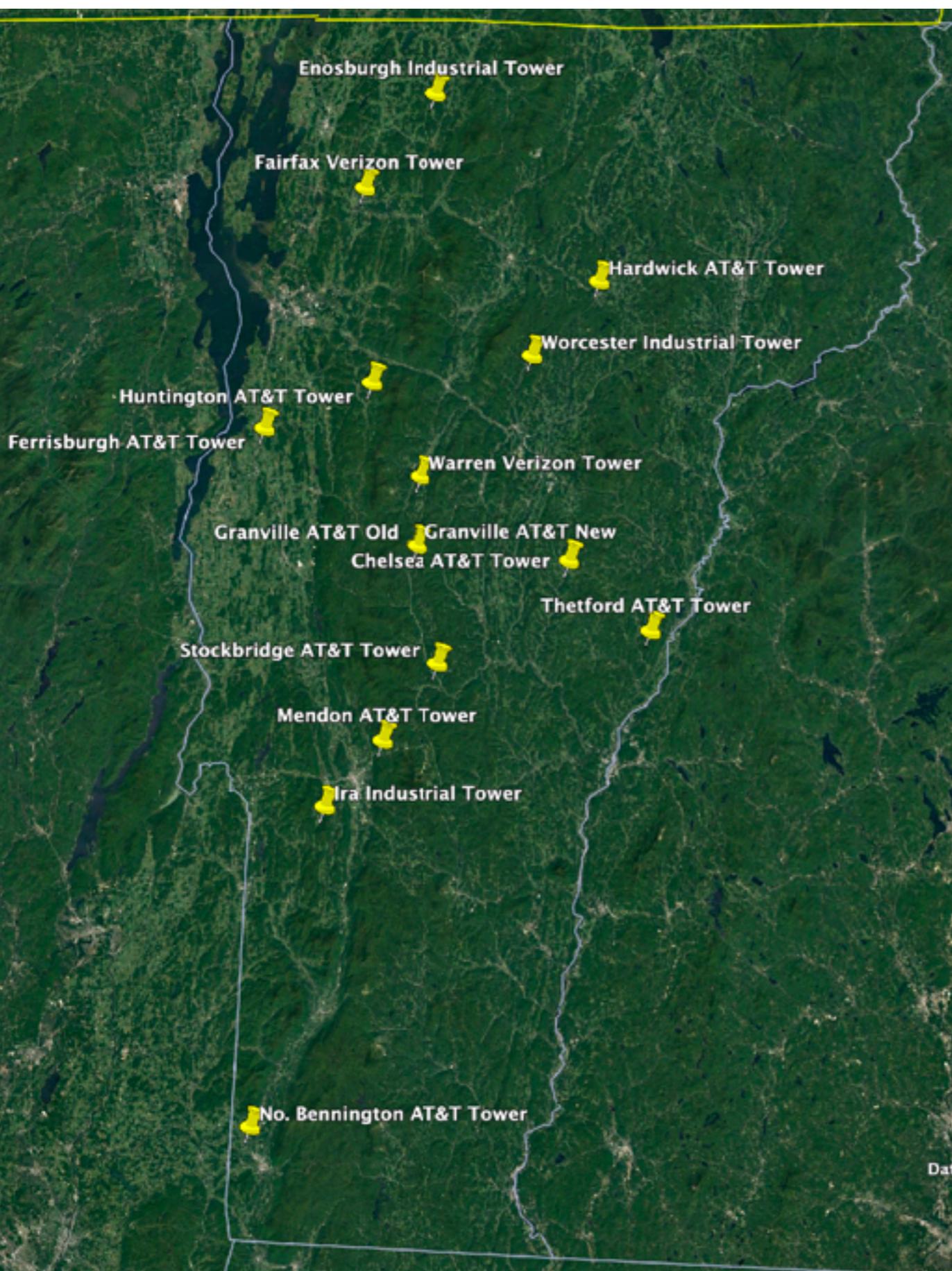
**Vermont Towns
and Citizens
have sought
VCE's assistance
for New Towers
since 2019**

**plus Six
Industrial Tower
& Wireless
locations to date**

Testimony will cover:

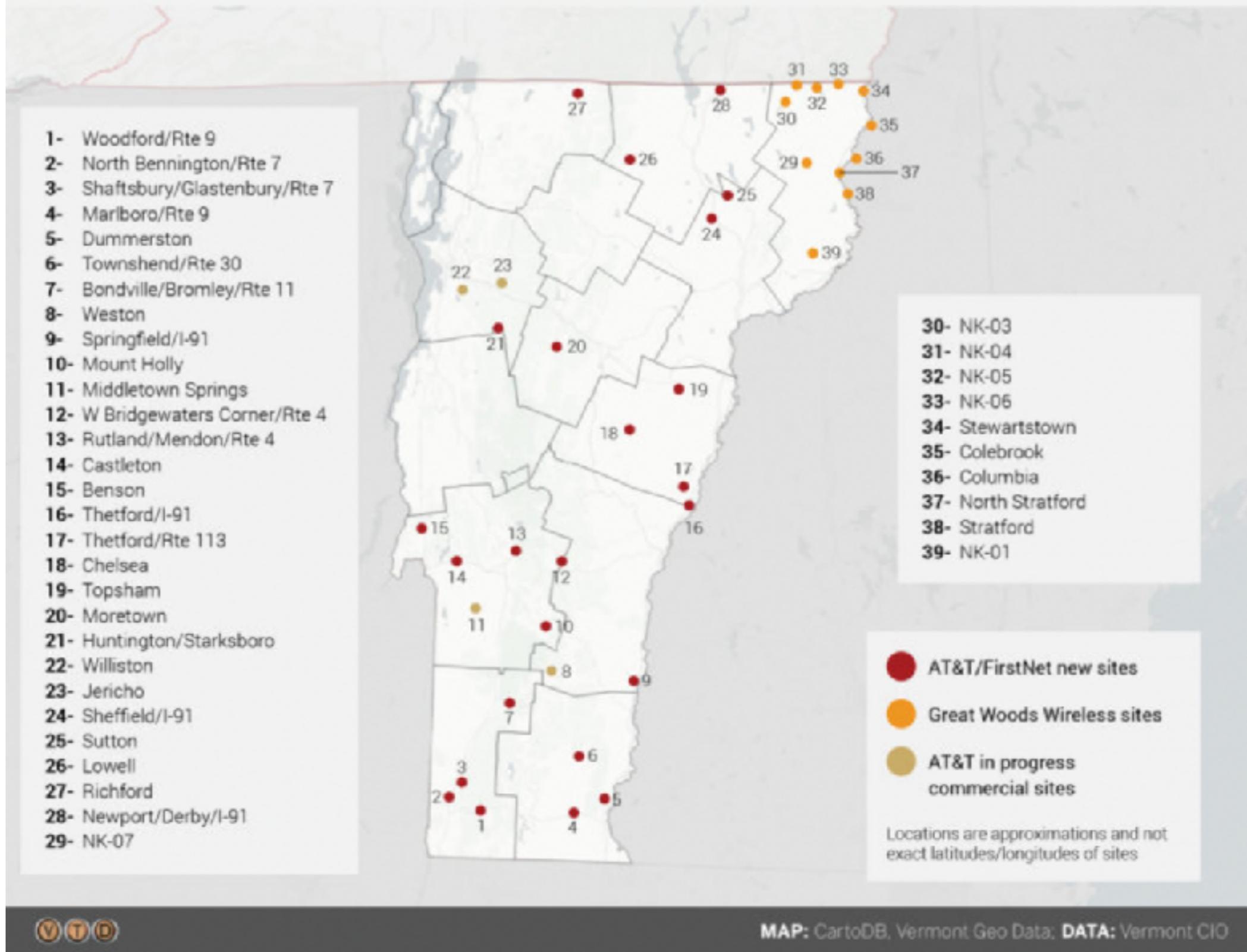
1. What is happening on the ground with specific sites and companies
2. The history of regulating towers and antennas in Vermont
3. Section 248a and recommendations for changes

Since 2019, VCE Has Been Contacted About These New Towers



1. **Enosburgh Industrial** - Contested Case at PUC, Federal Lawsuit 12/22
2. **Fairfax Verizon** - Town Leased Land, Neighbor Opposition, CPG Issued
3. **Hardwick AT&T** - Citizen Opposition, Dropped, Landowner Suicide
4. **Worcester Industrial** - Townwide Opposition, Landowner Ended Lease
5. **Huntington AT&T** - Neighbor Opposition, CPG Issued
6. **Ferrisburgh AT&T** - Health Concerns after Constructed
7. **Warren Verizon** - Citizen Opposition, Prior Lease Purchased, Dropped
8. **Granville AT&T Old** - Neighbor Opposition, Dropped.
9. **Granville AT&T New** - ANR and Neighbor Opposition Ongoing
10. **Chelsea AT&T** - Neighbor, School and Town Opposition, Dropped. New Site Further Away
11. **Thetford AT&T** - Townwide Opposition, New Site on Town Forest land, CPG Issued
12. **Stockbridge - AT&T** - ANR Opposition, Dropped. New Site CPG Issued
13. **Mendon AT&T** - Town Opposition, Height Reduced, CPG for Monopine
14. **Ira Industrial** - Contested Case at PUC, Federal Lawsuit 3/23
15. **No. Bennington AT&T** — Neighbor Concerns, Relocated, CPG issued.

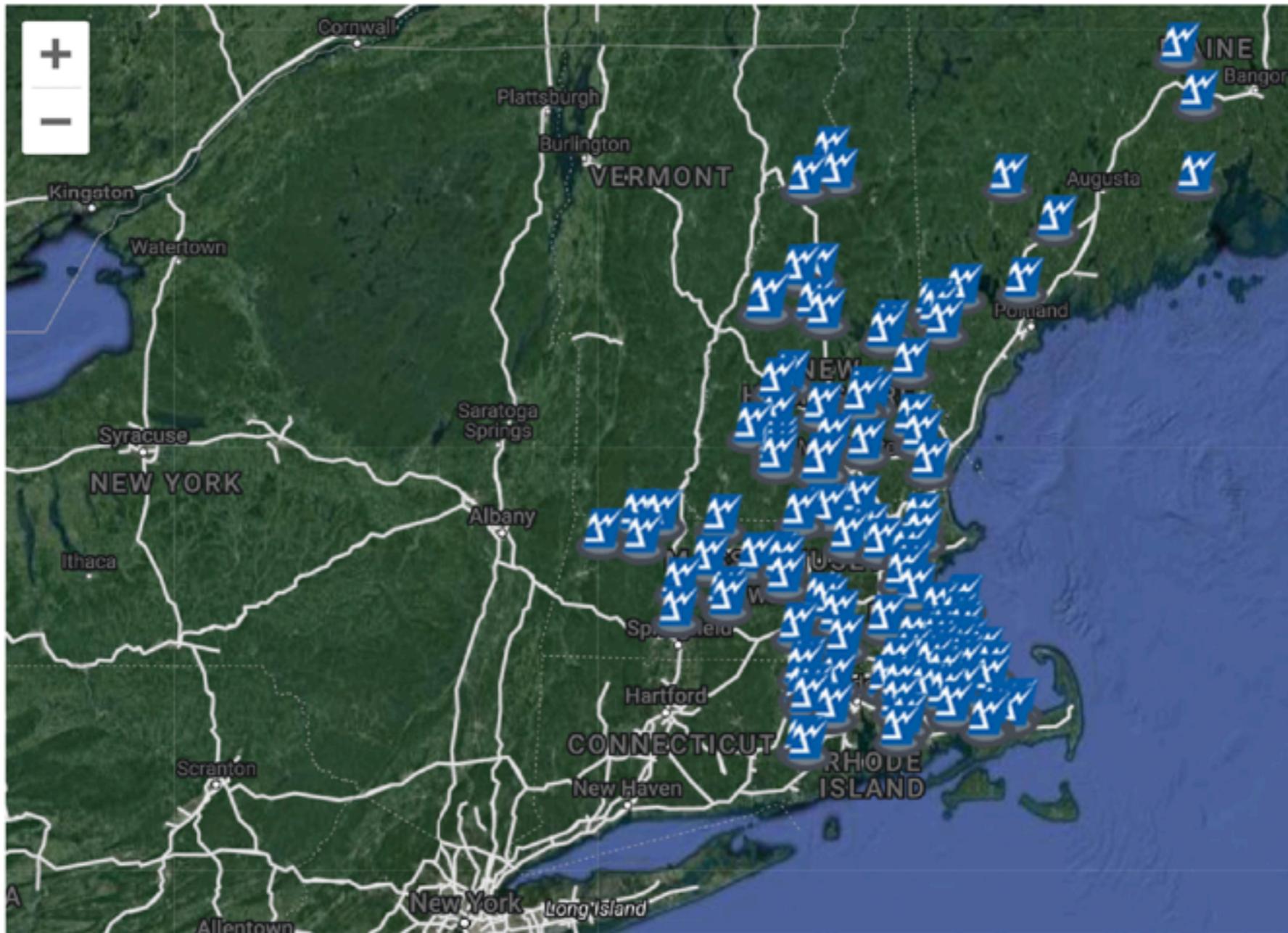
AT&T's planned tower expansion



Tower Locations

Industrial Tower and Wireless owns and operates an extensive inventory of strategically located tower sites throughout New England, Colorado, Kansas, Nebraska, South Dakota and Wyoming.

Our extensive inventory of tower site locations includes various tower types ranging in height from 300 to 1,000 feet that available carriers to grow their network and meet consumer demand for voice and data coverage.



NEW TO VERMONT Industrial Tower & Wireless

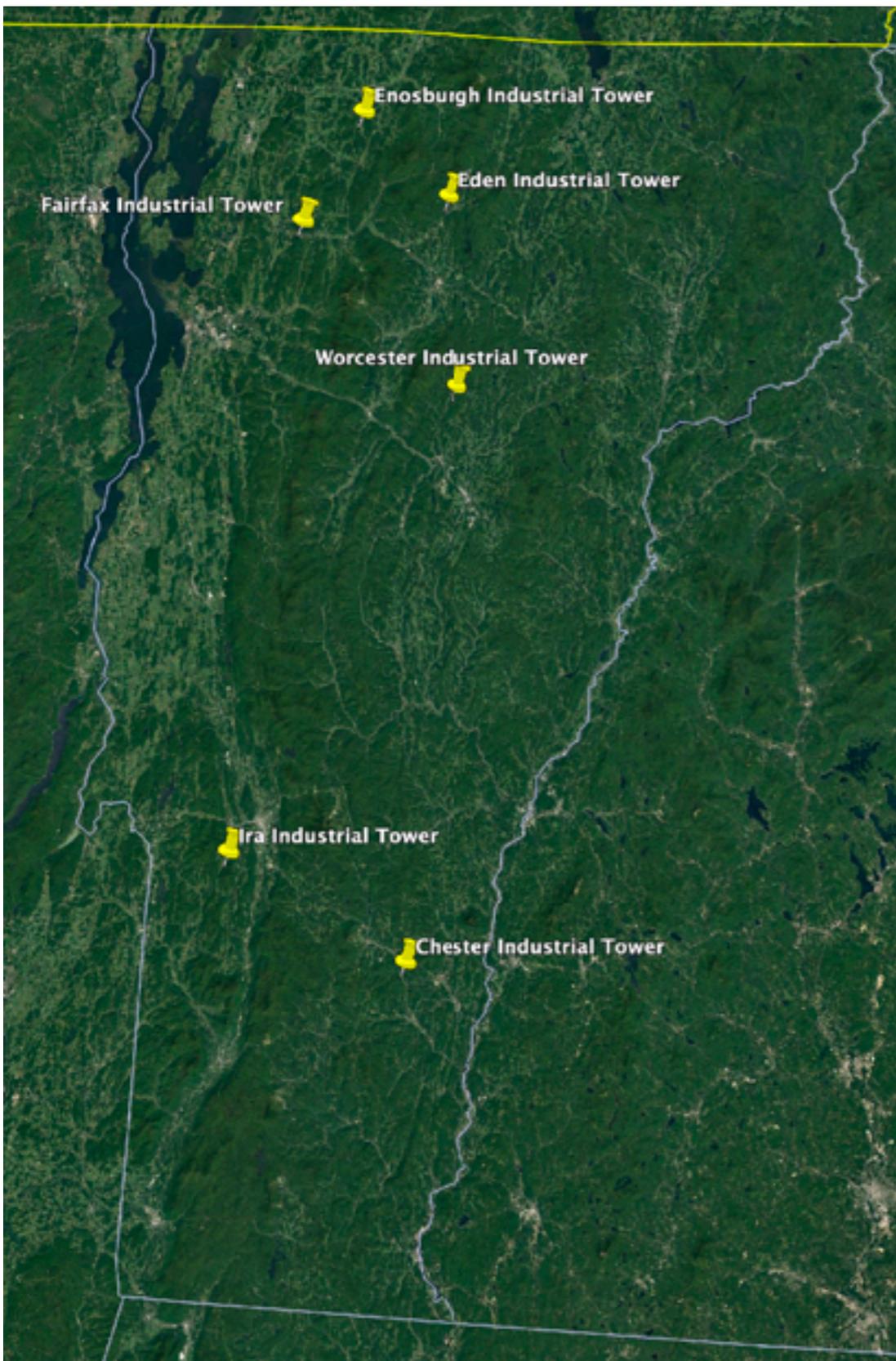
Lattice Towers for
Radio Antennas

Eden & Fairfax -
Uncontested
CPGs issued

Worcester -
Landowner
Terminated Lease

Enosburgh & Ira -
Contested Cases
at PUC and
Subjects of
Federal Lawsuits

Chester -
In Advance Notice
Period



Industrial's Fairfax Tower Erected

"I don't want Vermont turned into a giant pincushion with 200-foot towers sticking out of every mountain and valley," declared the state's Democratic United States Senator, Patrick J. Leahy.

"We're not asking that Vermont be left out of the telecommunications age. But we Vermonters want to be able to determine where the towers are located."

— Senator Patrick Leahy

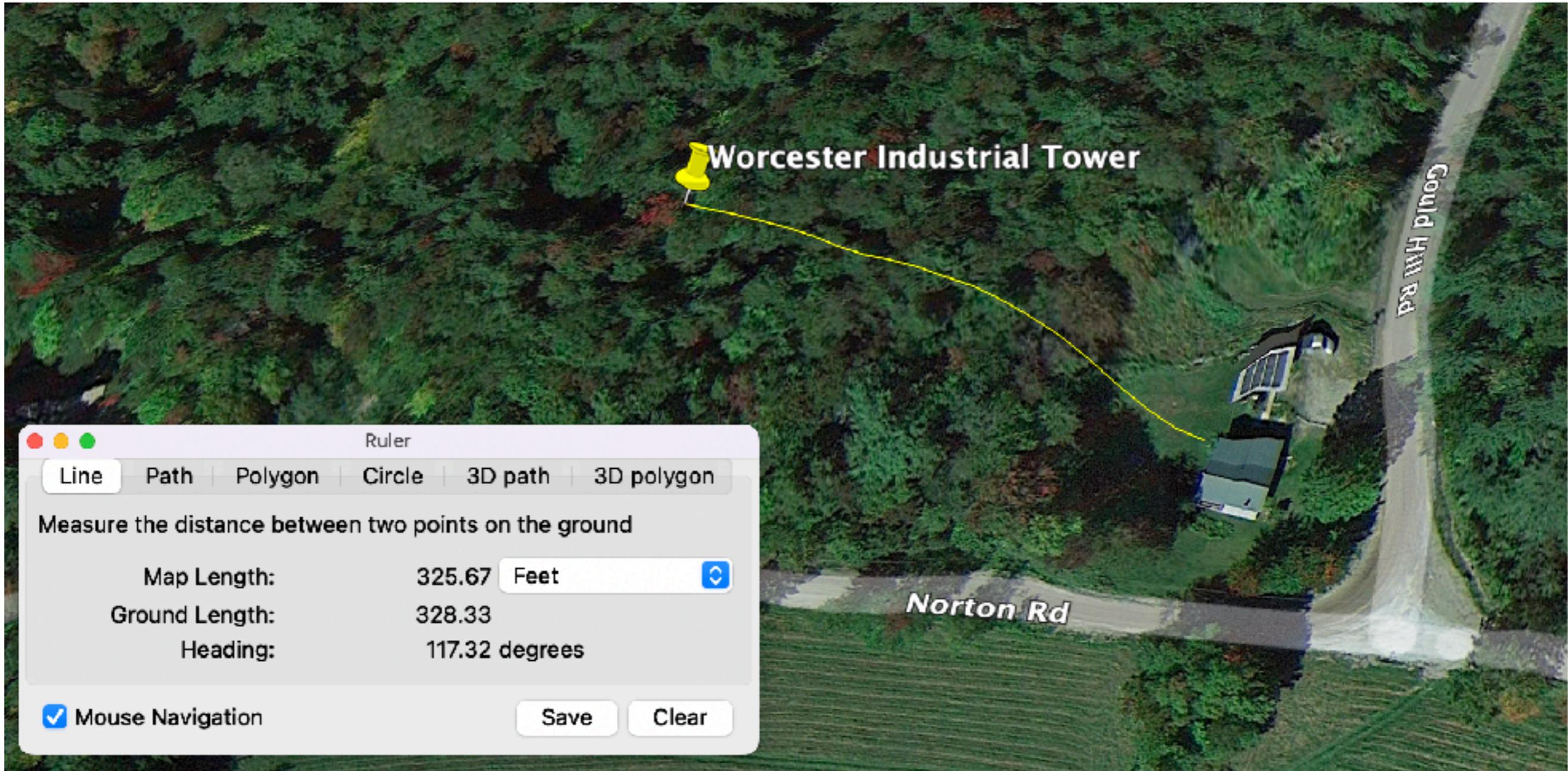
New York Times, March 11, 1998

<https://www.nytimes.com/1998/03/11/us/it-s-a-control-thing-vermont-vs-cell-phone-towers.html>

INDUSTRIAL – WORCESTER

TOO CLOSE TO HOME AND TOO UGLY

Landowner Cancelled Lease

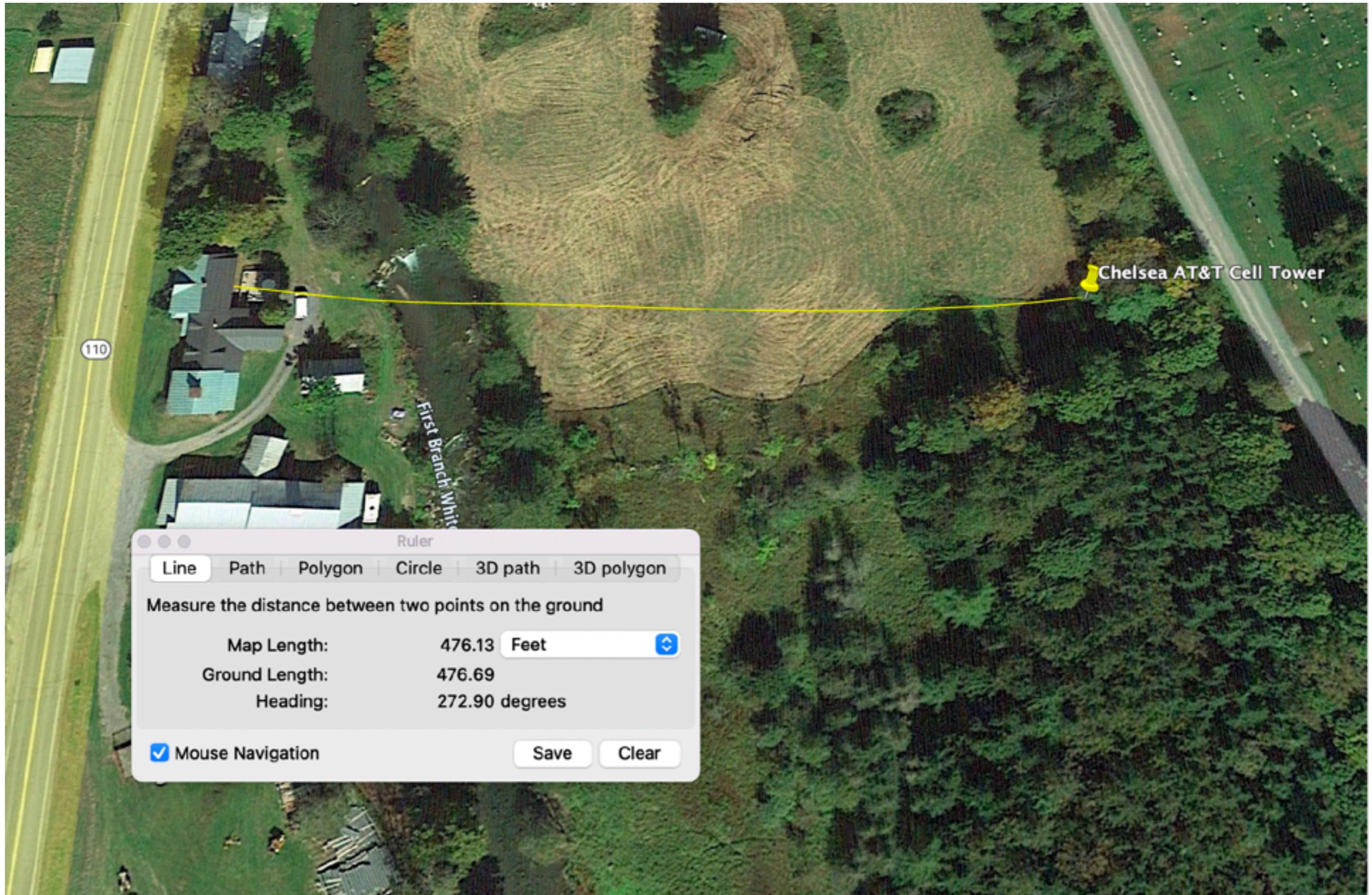


INDUSTRIAL – WORCESTER
CITIZEN SIMULATIONS

Approximate Proximity to Neighbor's Home
And Negative Aesthetic Impact from Popular Trail



AT&T CHELSEA TOO CLOSE TO HOMES



AT&T CHELSEA - TOO CLOSE TO SCHOOL, RECREATIONAL TRAIL

AT&T Withdrew after Opposition from School, Planning Commission and Neighbors



INDUSTRIAL — ENOSBURGH

TOO UGLY AND TOO CLOSE TO HOMES AND HISTORIC CHURCH



Industrial Tower and Wireless' visual simulation of its proposed radio tower in Enosburgh

PUBLIC UTILITY COMMISSION
RECORDS

INDUSTRIAL — ENOSBURGH

PRIVATE PROPERTIES AND ROADS WITH VIEWS OF PROPOSED TOWER

*Active Case: PUC Hearing Officer Recommends Approval,
Industrial Demands Permit from Federal Court*



INDUSTRIAL — IRA

TOO UGLY AND TOO CLOSE TO HOMES IN SCENIC, HISTORIC AREA



Two mile stretch of Route 133 (in red) in Ira with open verdant agricultural lowlands flanked by steep wooded ridges.

Proposed location of Industrial's 170-foot tall lattice tower with 13 feet of whip antennas for hillside east of horse farm

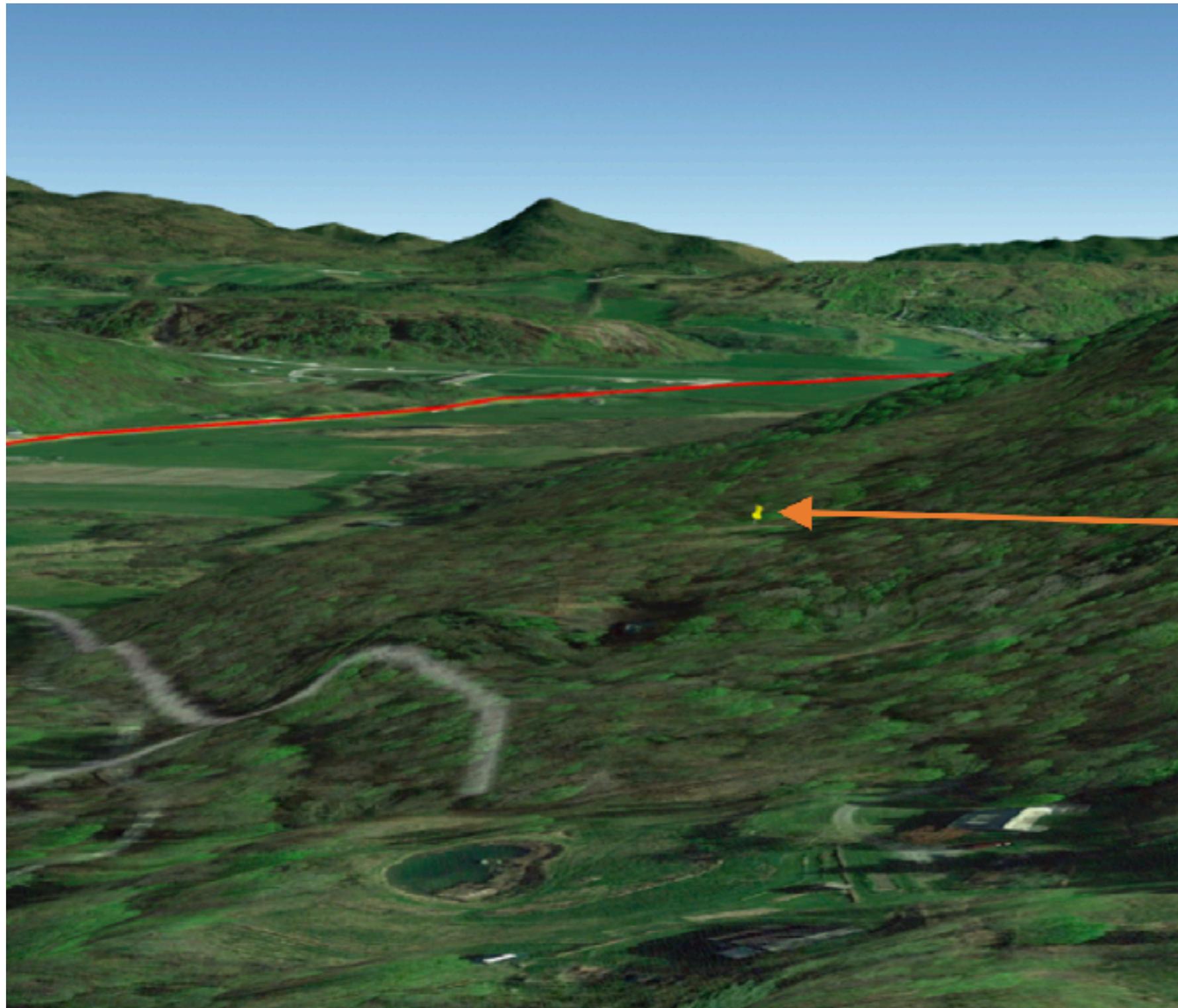


INDUSTRIAL - IRA

Tower would be between private residences and scenic mountain views

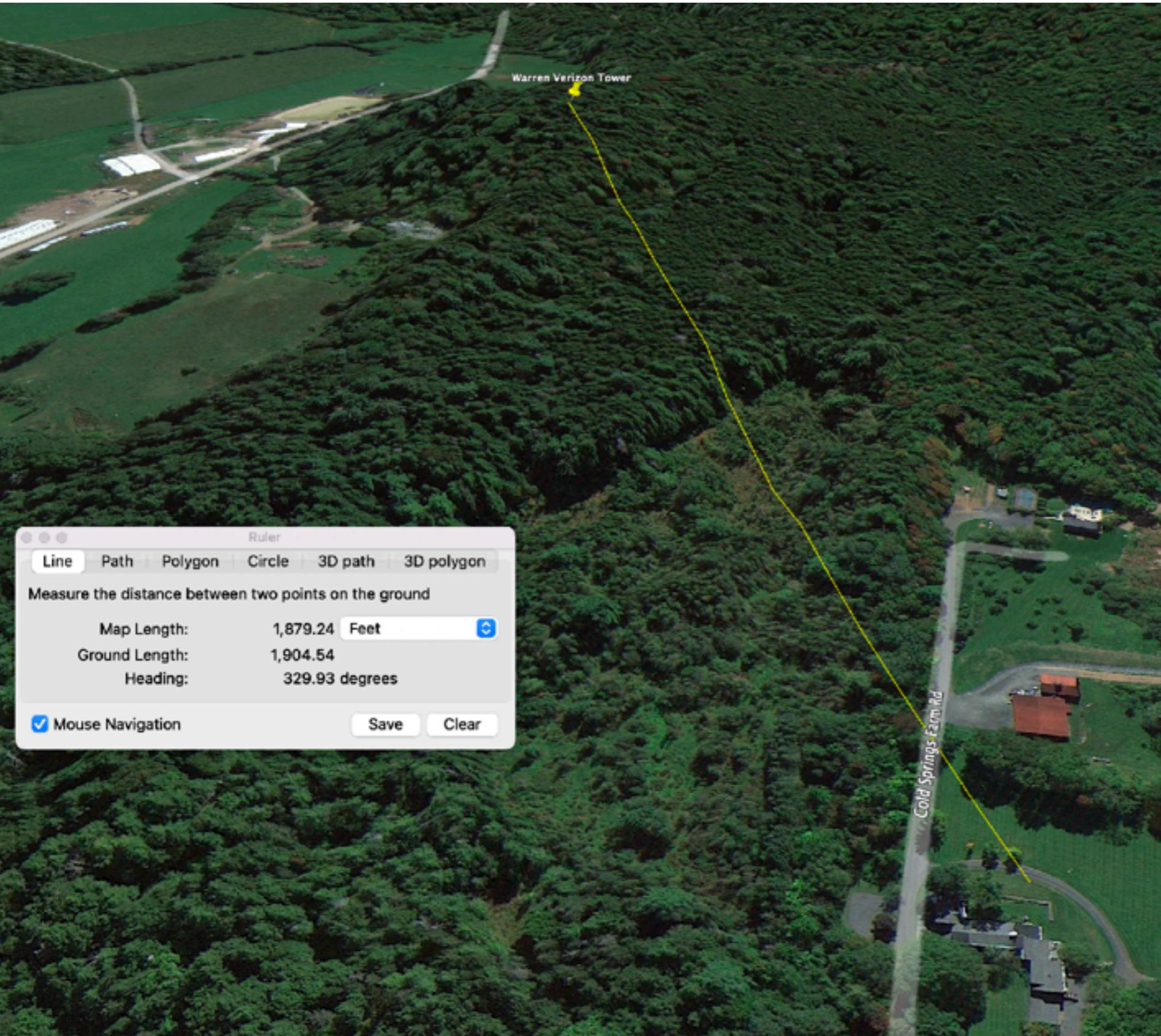
Active Case at PUC - Hearing Officer Proposal for Decision 3/12/23 Recommends Approval

Industrial Demands Permit from Federal Court



Tower

VERIZON – WARREN TOO UGLY



*Verizon No Longer Owns
Rights to Site.*

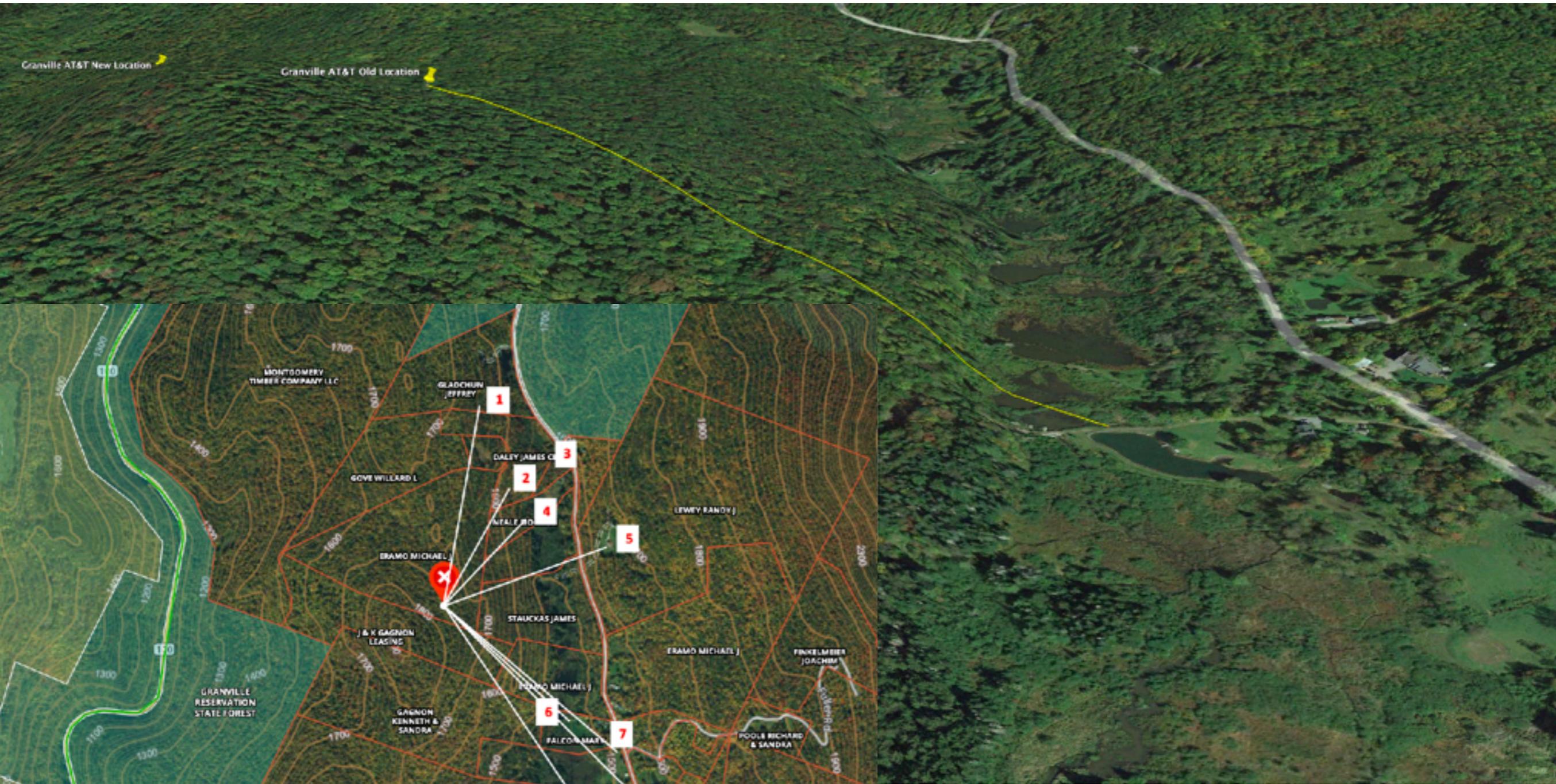
*Rumored to be Actively
Seeking New Site.*



AT&T GRANVILLE

TOO UGLY, WILDLIFE HABITAT IMPACTS

LITIGATION OVER RIGHT OF WAY FOR ACCESS



First Proposed Location, Right Pushpin:
Impacted Numerous Property Owners, see left image
Second Proposed Location, Left Pushpin:
Impacts Wildlife Habitat and One Property Owner

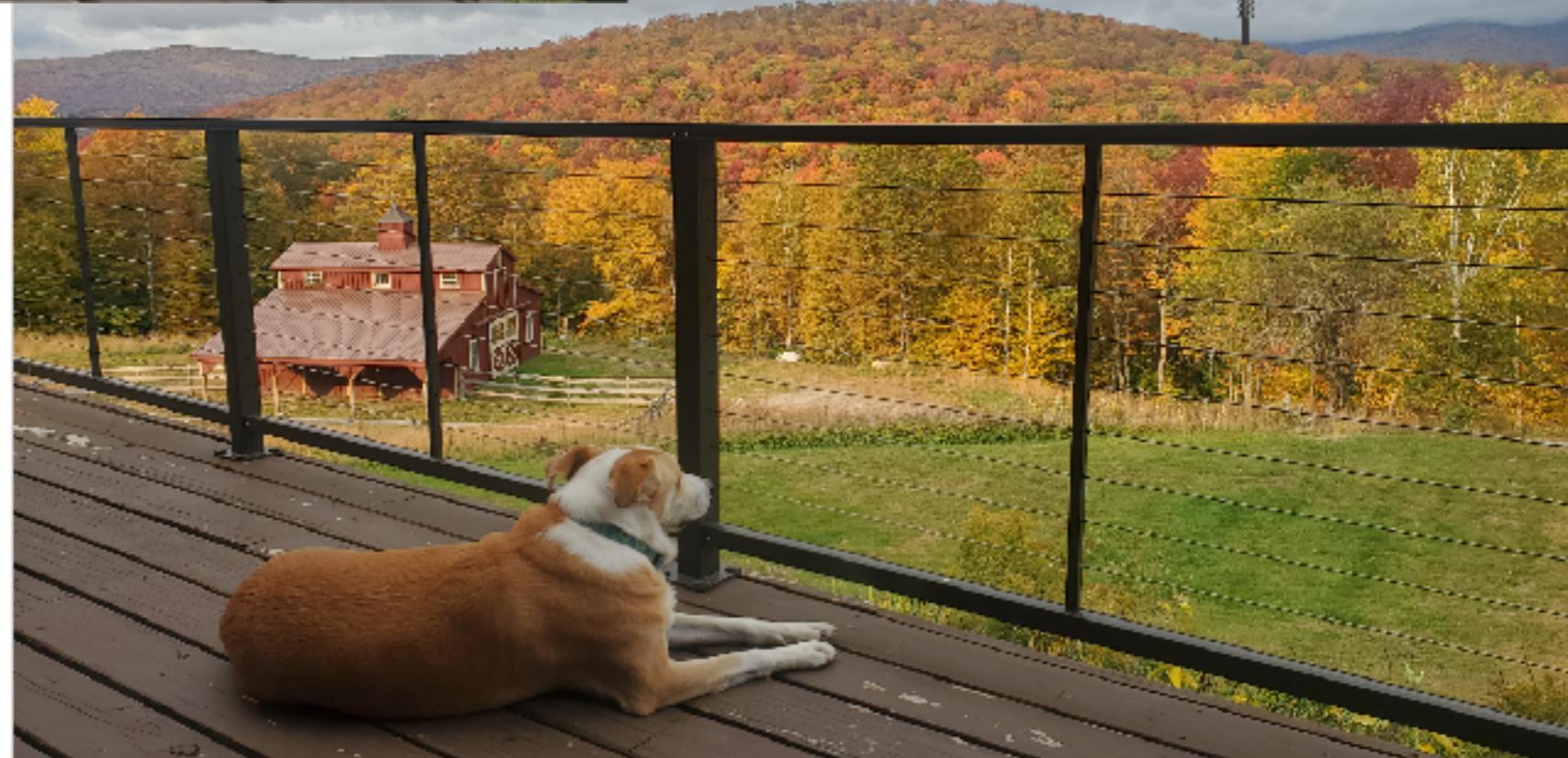
AT&T GRANVILLE OLD AND NEW Location

Active Case at PUC, Litigation over Right of Way in Superior Court



Second, Current Proposed Location

First Proposed Location Withdrawn
But May Return if Second Site
Denied



Canister Antennas on Utility Poles in Urban Areas

AT&T Burlington

Fern St.

—no notification to homeowner



Verizon Shelburne

Harbor Rd. & Rt. 7

Notice says: MAY EXCEED the FCC Occupational exposure limit



Antenna Array next to home in Shelburne, Vermont

Other nearby neighbors: Charlotte Family Health, Folino's Restaurant, Fiddlehead Brewing, Vermont Tortilla Co. and more



Winooski Antenna

Near Residential Elderly Center
And
School



South Burlington Antennas

Intersection of 116 and South Williston





Burlington

Downtown Antenna Array

VCE Contacted by
Resident of Building who was
Experiencing Health Issues
after New AT&T Antennas
were Installed

Brattleboro Agway Parking Lot Putney Road





CELL TOWERS DISGUISED AS TREES CREATE MICROPLASTIC POLLUTION – AN ENVIRONMENTAL NIGHTMARE

Apr 8, 2022

<https://ehtrust.org/cell-towers-disguised-as-trees-create-microplastic-pollution-an-environmental-nightmare/>

Monopine shedding plastic debris around Verizon tower in Norwich, Vermont

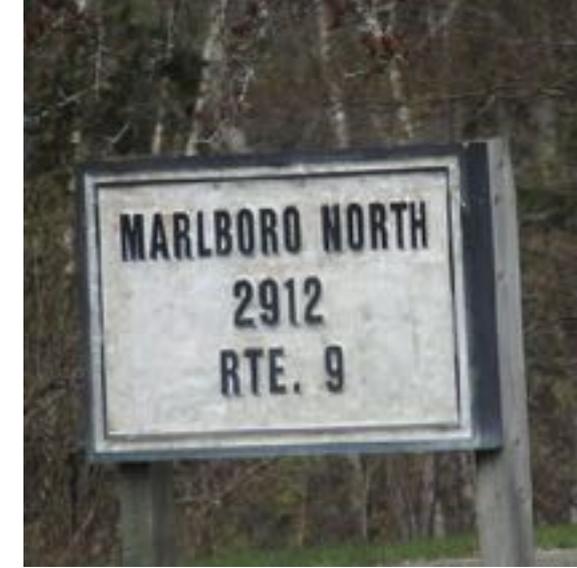
The Treasure Hunt of Tracking Towers and Antennas through Time

We need one statewide database

1. Pre-1970 and Act 250, details of Towers and Antennas can, but not always, be found in land records.
2. Prior to Section 248a, towers were permitted through Act 250. Finding all those, plus amendments, requires searching the Act 250 database. <https://anrweb.vt.gov/ANR/Act250/default.aspx>
3. 10 V.S.A. § 6030 requires the Natural Resources Board to maintain a map that shows the location of all wireless telecommunications facilities in the State: <https://legislature.vermont.gov/statutes/section/10/151/06030>. This statute was effective April 15, 1998. I reached out to the NRB General Counsel inquiring if a map was created, never heard back.
4. Section 248a became law in 2007. <https://legislature.vermont.gov/statutes/section/30/005/00248a>
5. Towers permitted through Section 248a through the end of 2016 are archived on this map <https://vtpsd.maps.arcgis.com/apps/webappviewer/index.html?id=2a430c55a7c247dc841f1b592ed75eb2>
6. In 2017 ePUC began. There is no map of towers. Various searches either by town or by statute can identify cases. This link should turn up All Cases filed in ePUC in Section 248a cases <https://epuc.vermont.gov/?q=node/87>. 977 cases show up. An Excel file can be downloaded. But it requires going into each case to find the town and any other details.
7. DPS has created this map of wireless antennas deployed throughout Vermont that have been done outside of the regulatory processes <https://vtpsd.maps.arcgis.com/apps/webappviewer/index.html?id=c926d155167d4a5586e8e1aca1701cfa>

The Act 250 Loophole

VTel Marlboro
Next to School



Section 248a also applies only to new structures lower than 50 feet in height.



Examples of Municipal Telecom By-Laws

Shelburne

<https://www.shelburnevt.org/DocumentCenter/View/108/Towers-and-Telecommunications-Facilities-Ordinance>

Mendon

<https://www.mendonvt.org/wp-content/uploads/2013/10/Wireless-Telecommunications-Facilities.pdf>

Ludlow

<https://www.ludlow.vt.us/vertical/sites/%7B78E8DA21-0D46-4486-AF59-9D2B5A1048F3%7D/uploads/%7B049B1D03-1C5D-438A-8FA5-618796D92234%7D.PDF>

Duxbury

<https://www.duxburyvermont.org/vertical/sites/%7B00B6C2A9-912C-4C60-B699-582A202A10A3%7D/uploads/TeleComOrd.pdf>

Townshend

<http://unofficialtownshendvt.net/DOCUMENTS/ORDINANCES/Ordinances2/WIRELESSTELECOM11-01.pdf>

Dover

https://www.doververmont.com/sites/default/files/fileattachments/boards_and_commissions/page/3175/telecomordinance-1.pdf

Wilmington

<https://wilmingtonvermont.us/wp-content/uploads/2020/07/Zoning-Ordinance-Updated-2020.pdf>

Guilford

https://guilfordvt.gov/wp-content/uploads/2019/06/Telecommunications_Facilities_Ordinance_1999.pdf

Rutland Town

<https://www.rutlandtown.com/wp-content/uploads/2021/03/Telecommunications-Ordinance.pdf>

Brookline

<https://www.brooklinevt.com/sites/default/files/documents/ordinances/Brookline%20Wireless%20Telecommunications%20Facilities%20Ordinance.pdf>

Resolve, to Study the Effects of 5G Technology on Bird, Bee and Insect Populations and the Effects of Long-term Exposure on Children

Maine Legislature, HP 466, LD 697

Sec. 1. University of Maine System to study the effects of 5G technology and radio frequency.

Resolved: That the University of Maine System shall review, either through clinical study or by reviewing a compilation of scientific literature, the effects of:

1. So-called 5G wireless technology on bird, bee and insect populations and migrations; and
2. So-called 5G wireless technology, radio frequency emissions at thermal levels and pulsed and modulated radio frequency radiation at nonthermal levels for extended periods of time on children in educational settings.

No later than December 6, 2023, the University of Maine System shall submit a report with its findings to the Joint Standing Committee on Energy, Utilities and Technology.

SUMMARY

This resolve directs the University of Maine System to review, either through clinical study or by reviewing a compilation of scientific literature, the effects of so-called 5G wireless technology on bird, bee and insect populations and to study the effects of long-term exposure to 5G wireless technology and radio frequency radiation on children in educational settings and to report findings to the Joint Standing Committee on Energy, Utilities and Technology.

Testimony has been submitted by Liz Barris, Patricia Burke, Frank Clegg, Devra Davis, Heidi Davis, Cecelia Doucette, Courtney Gilardi, Paul Ben Ishai, Kate Kheel, Albert Manville, Lendri Purcell, Cindy Russell, Theodora Scarato, and others.

To track the status of this bill or to download testimony:

<https://legislature.maine.gov/billtracker/#Paper/HP0466?legislature=131>

Specific changes we recommend to Section 248a and the PUC's process and rules for new towers, existing structures hosting antennas, and new antennas

- Require the landowner to be a co-applicant, as is routine in Act 250.
- Add the Vermont Department of Health to receive required notification of applications.
- Change the Advance Notice Period to 120 days: “(e) Notice. Not less than **120 days** prior to filing...” so towns have time.
- Require notification to towns and townwide notification via Front Porch Forum and/or posting in local locations of towers being proposed, before leases are finalized, in the Advance Notice period, identifying the specific location with street address (not just latitude and longitude).
- Add notice to adjacent landowners within a mile to the current notice to adjoining owners for proposed tower sitings.
- Require Advance Notices to contain propagation maps and simulations (only AT&T does this already).
- Require applicants for new towers to provide simulations at full build-out of all possible antennas, in order for aesthetic and RFR issues to be properly considered.
- Require projects that require back-up generators to identify alternatives to the 20 – 30 kW fossil fuel generators that are now common.
- Require annual fuel consumption and GHG emissions disclosure with application and reported annually.
- Require propagation maps to show the difference in capacity from existing to proposed new coverage.
- Change how historic areas and structures are evaluated to include views of the proposed tower from the historic areas and structures.
- Require the PUC to conduct a public hearing, site visit with balloon test (or drone hovering) after party status determinations are made.
- Allow all parties to submit testimony and ask questions about coverage.

Specific changes we recommend to Section 248a and the PUC's process and rules for new towers, existing structures hosting antennas, and new antennas *(cont'd)*

- Eliminate pre-filed testimony, discovery and cross-examination-only evidentiary hearings. If a hearing is requested, require the applicant and the other parties to submit expert reports or other documentary materials as exhibits in advance of the hearing with direct live testimony with cross-examination, similar to the Act 250 District Commission process.
- Change the standard with respect to Municipal & Regional Plans/Recommendations: “Unless there is good cause to find otherwise, substantial deference **SHALL** be given to the plans of the affected municipalities and regions.”
- Require all ground or tower-space leases on towers that are subject to PUC jurisdiction to be filed in the land records.
- Require applicants for new additional or swapped antennas to evaluate the total RF exposure.
- Require all telecommunications sites to file annual reports of RFR emissions at specific distances for the purpose of monitoring for compliance with current and future FCC RF emissions limits.
- Eliminate the exemption for new support structures less than 50 feet in height.^[1]
- For *de minimus* small cell installations, require notification to all property owners within 500 feet.
- Enable public input into small cell locations and require providers to identify alternative sites.
- Establish setbacks for towers from adjoining property lines, similar to solar setbacks already in place. The NH Commission determined that 500 meters (1640 feet) is a safe distance).
- Create a searchable statewide database and map that combines Act 250, PUC Section 248a and ePUC Section 248a cases.

^[1] <https://macmtn.com/>